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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/512,410

10/25/2004

Susumu Hoshi

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EXAMINER

MULLIS, JEFFREY C

ART UNIT

PAPER NUMBER

1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/512,410	Applicant(s) HOSHI ET AL.	
	Examiner Jeffrey C. Mullis	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11-13-07</u> . | 6) <input type="checkbox"/> Other: _____ |

Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as filed does not disclose that the vinyl aromatic polymer blocks have a block rate of 10-90%.

Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The specification Examples discloses processes for producing mixtures of block copolymers and in some examples such as example 1 actually produces a mixture of block copolymer with styrene-butadiene apparently random copolymer and it is therefore unclear what applicants mean in line 1 of claim 1 by "(a) block copolymer" in that the same language appears in the specification and yet appear to apply to mixtures of materials.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Moczygemba (US 5,227,419).

Patentees in run 2 in column 9, lines 6 et seq and elsewhere discloses a process in which styrene/diene block copolymers having greater than 60% styrene are produced using alkyl lithium initiators and having blocks produced from pure charges of styrene and other blocks produced from mixed charges of styrene/diene containing predominately styrene in the presence of randomizer. Since the applicants specification produces block copolymers having applicants characteristics by processes also having the above features it would reasonably appear that applicants and patentees materials inherently have identical characteristics. Use of applicants stabilizers are disclosed at column 5, lines 7-17. Sheets are produced at column 8, lines 10-11.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al., 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Claims 1-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Toya et al. (US 6,107,411).

Patentees in example "P4" (column 10, line 5 et seq) disclose a block copolymer in which styrene is polymerized using an alkyl lithium initiator in the presence of a randomizer following which mixed charges of styrene/diene are polymerized in which high ratios of styrene/diene are used and in which the calculated molecular weight of the homopolystyrene block resulting from polymerization of the pure styrene charge is less than 35,000. Isoprene may be used as diene at the paragraph bridging columns 2 and 3. Applicants' lubricants and stabilizers may be added in applicants amounts at column 8, lines 5-20. Since applicants produce their materials in a similar manner in their specification examples, identical characteristics are assumed inherent.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis

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exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

The above US patent is equivalent to EP '240, newly cited by applicants

Claims 1-12 and 14-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Guntherberg, (US 6,162,867), newly cited by applicants.

Patentees in column 13, lines 27 et seq disclose a block copolymer in which styrene is polymerized using an alkyl lithium initiator in the presence of a randomizer following which mixed multiple charges of styrene/diene are polymerized in which high ratios of styrene/diene are used and in which the calculated molecular weight of the homopolystyrene block resulting from polymerization of the pure styrene charge is less than 35,000. Isoprene may be used as the diene in patent claim 9. Lubricants may be added at column 11, lines 54-64. Since applicants produce their materials in a similar manner in their specification examples, identical characteristics are assumed inherent.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Claims 1-25 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matsui et al. (WO 02/38642).

It is noted that US 2004/0102576 is equivalent to the WO '642 patent and as US '576 is in English, US '576 will be referred to.

Matsui in Example 23 on page 15 disclose a block copolymer in which styrene is polymerized using an alkyl lithium initiator in the presence of a randomizer following which mixed multiple charges of styrene/diene are polymerized in which high ratios of styrene/diene are used and in which the calculated molecular weight of the homopolystyrene block resulting from polymerization of the pure styrene charge is less than 35,000. Isoprene may be used as diene in paragraph 83 and fatty acid lubricant may be used at paragraph 109. Since applicants produce their materials in a similar manner in their specification examples, identical characteristics are assumed inherent.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Applicant's arguments filed 1-22-08 have been fully considered but they are not persuasive. With regard to applicants "(F)irst argument on page 14 of their remarks, the examples in applicants specification show that the block rate is substantially higher than the percentage of styrene added as pure charges of styrene. Also with regard to

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applicants arguments 1-3, applicants claims refer to "a block copolymer", not a block copolymer composition and Moczygemba '419 produce 2 block copolymers in the example described at column 9, lines 30-60 and if any one of these block copolymers posses applicants characteristics then the claims are anticipated since the claims do not exclude block copolymers which do not read posses applicants characteristics. It is noted that the block copolymer produced from the second charge of butyl lithium would not have a styrenic block having a molecular weight of grater than 35,000 if it is assumed that the only styrene present in the styrenic block produced from the second charge is that present in the second pure charge of monomer. However, many of applicants specification examples. Note for instance example A-1 in Table 1 where a molecular weight for the styrenic block of about 17,000 can be calculated based on such an assumption despite the fact that table 1 discloses a peak molecular weight of 70,000 and amount of block styrene of 35,000 or less molecular weight of 63%, not 100%. At present it cannot be ascertained that there is any difference between the materials of Moczygemba and those of the instant claims or what such differences might be so the issue of obviousness is moot. In any case claims differing from a reference only by a characteristic are not rejected based on th4 approach set out in Graham vs Deere.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis
M-F, 9-5 pm at telephone number 571 272 1075.

Jeffrey C. Mullis
Primary Examiner
Art Unit 1796

JCM

5-24-08

/Jeffrey C. Mullis/

Primary Examiner, Art Unit 1796